

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

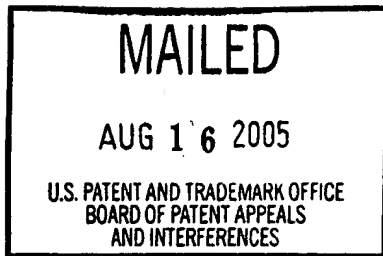
**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte EBERHARD HOLL



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Appeal No. 2005-1646  
Application No. 09/748,341

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ON BRIEF

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Before McQUADE, NASE, and BAHR, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 to 36, which are all of the claims pending in this application.

We REVERSE and enter a new rejection pursuant to 37 CFR § 41.50(b).

BACKGROUND

The appellant's invention relates to a method and device for detecting the complete stop of a vehicle (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellant's reply brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Sigl et al. (Sigl)  
Masur

US 5,129,496  
GB 2 297 619

July 14, 1992  
August 7, 1996

Claims 1, 17 and 36 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sigl.

Claims 2 to 16 and 18 to 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sigl in view of Masur.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (mailed January 26, 2004) for the examiner's complete reasoning in support of the

rejections, and to the brief (filed October 14, 2003) and reply brief (filed March 29, 2004) for the appellant's arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

#### **The anticipation rejection**

We will not sustain the rejection of claims 1, 17 and 36 under 35 U.S.C. § 102(b) as being anticipated by Sigl.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). In other words, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

Claims 1, 17 and 36 read as follows:

1. A method for detecting the complete stop of a vehicle, the complete stop being detected as a function of one quantity representing braking force when the vehicle is braked and as a function of one of the vehicle's speed and the speed of at least one of the vehicle's wheels.
17. A method for detecting a complete stop of a vehicle, comprising the step of:  
detecting the complete stop as a function of one quantity representing a braking force when the vehicle is braked and as a function of one of a vehicle speed and a speed of at least one vehicle wheel.
36. A device, comprising:  
an arrangement configured to detect a complete stop of a vehicle as a function of a quantity that represents a braking force when the vehicle is braked and as a function of one of a vehicle speed and a speed of at least one vehicle wheel.

Sigl's invention relates to a brake control system for automatically applying a braking pressure when the vehicle speed drops below a very low speed value and the brake pedal is operated, and maintaining that pressure until the vehicle is driven off again. According to Sigl's invention, a low reference speed value  $v_x$  at which the brakes are automatically applied is variable and dependent on the deceleration in such a way that the speed value  $v_x$  increases as the deceleration increases. On the one hand, the transition from braking by means of the regular brake to employing the locking brake must not be noticed by the operator of the vehicle; on the other hand, the locking brake

must take effect immediately after the vehicle has been brought to a complete stop.

Sigl teaches (column 4, lines 17-25) that:

The invention can also be realized in that when reaching a small vehicle reference speed, e.g. 10 km/h, the measured vehicle deceleration, is used to calculate when the vehicle will come to a complete stop when maintaining the deceleration and that at this calculated point in time, the brake pressure is supplied and maintained. In addition, this calculating and supplying procedure can be made dependent upon operation of the brake.

Initially, we note that the examiner (answer, pp. 6-7) determined that the claimed phrase concerning detecting a complete stop as used in independent claims 1, 17 and 36 when read in light of the specification means "determining the time (or the future location) the vehicle will completely stop using the brake force and the vehicle speed." The appellant did not dispute this interpretation in the reply brief.

Claims 1, 17 and 36 are not anticipated by Sigl for the reasons set forth in the brief and reply brief. Sigl clearly teaches that only measured vehicle deceleration is used to calculate when the vehicle will come to a complete stop. Sigl then notes that this calculation of when the vehicle will come to a complete stop is accurate only if the deceleration is maintained and the brake pressure is supplied and maintained. In our view, Sigl's statement that "[i]n addition, this calculating and supplying procedure can be made dependent upon operation of the brake" does not teach detecting a complete

stop of a vehicle utilizing both (1) a function of a quantity that represents a braking force when the vehicle is braked and (2) a function of one of a vehicle speed and a speed of at least one vehicle wheel. At best, this statement teaches to calculate when the vehicle will come to a complete stop only when the brake is operating. It does not teach to utilize the amount of braking force being applied in calculating when the vehicle will come to a complete stop.

For the reasons set forth above, the decision of the examiner to reject claims 1, 17 and 36 under 35 U.S.C. § 102(b) is reversed.

#### **The obviousness rejection**

We have reviewed the reference to Masur applied in the obviousness rejection of claims 2 to 16 and 18 to 35 but find nothing therein which makes up for the deficiency of Sigl discussed above with respect to claims 1 and 17. Accordingly, the decision of the examiner to reject claims 2 to 16 and 18 to 35 under 35 U.S.C. § 103 is reversed.

#### **New ground of rejection**

Under the provisions of 37 CFR § 41.50(b), we enter the following new ground of rejection.

Claims 16 and 36 are rejected under 35 U.S.C. § 112, first paragraph.

Claims 16 and 36 read as follows:

16. A device (5, 32, 47) for detecting the complete stop of a vehicle as a function of the vehicle's speed in accordance with claim 1, characterized in that the device (5, 32, 47) for detecting a complete stop detects the complete stop of a vehicle as a function of the vehicle's speed or of the speed of at least one of the vehicle's wheels and as a function of a quantity (pB), which represents the braking force when the vehicle is braked.

36. A device, comprising:  
an arrangement configured to detect a complete stop of a vehicle as a function of a quantity that represents a braking force when the vehicle is braked and as a function of one of a vehicle speed and a speed of at least one vehicle wheel.

The Federal Circuit has established a framework for determining whether an element of a claim invokes means-plus-function treatment.<sup>1</sup> See Al-Site Corp. v. VSI Int'l, Inc., 174 F.3d 1314, 1318, 50 USPQ2d 1161, 1166 (Fed. Cir. 1999); Sage Prods. Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1427, 44 USPQ2d 1103, 1109 (Fed. Cir. 1997). If the word "means" appears in a claim element in association with a function, the presumption is that 35 U.S.C. § 112, paragraph 6 applies. See id. This

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<sup>1</sup> 35 U.S.C. § 112, paragraph 6, states:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

presumption collapses, however, if the claim itself recites sufficient structure, material, or acts to perform the claimed function. See id. Without the term "means," a claim element is presumed to fall outside means-plus-function strictures. See id. Once again, however, that presumption can collapse when an element lacking the term "means" nonetheless relies on functional terms rather than structure or material to describe performance of the claimed function. See Al-Site, 174 F.3d at 1318, 50 USPQ2d at 1167.

Claims 16 and 36 rely solely on functional terms rather than structure or material to describe the claimed device or arrangement. As such, we view claims 16 and 36 as "single means claims" which violate the enablement requirement of 35 U.S.C. § 112, first paragraph.

A "single means claim" is a claim drafted in "means-plus-function" format yet reciting only a single element instead of a combination. In re Hyatt, 708 F.2d 712, 713, 218 USPQ 195, 196 (Fed. Cir. 1983). Paragraph six of 35 U.S.C. § 112 sanctions the use of the means-plus-function format for combination claims only. Id. See generally O'Reilly v. Morse, 56 U.S. 62, 112-113 (1854); General Elec. Co. v. Wabash Appl. Corp., 304 U.S. 364, 371, 37 USPQ 466, 469 (1938) ("A patentee may not broaden his product claims by describing the product in terms of function.").



The statutory basis for the rejection of a "single means claim" is the requirement of the first paragraph of 35 U.S.C. §112 that the enabling disclosure of the specification be commensurate in scope with the claim under consideration. In re Hyatt, 708 F.2d at 714, 218 USPQ at 197. The long-recognized problem with a single means claim is that it covers every conceivable means for achieving the stated result, while the specification discloses at most only those means known to the inventor. Id. Thus, a "single means claim" is properly rejected for what used to be known as "undue breadth," but which has since been appreciated as being, more accurately, based on the first paragraph of 35 U.S.C. § 112. Id.; see also In re Borkowski, 422 F.2d 904, 909, 164 USPQ 642, 645-46 (CCPA 1970).

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 17 and 36 under 35 U.S.C. § 102(b) is reversed and the decision of the examiner to reject claims 2 to 16 and 18 to 35 under 35 U.S.C. § 103 is reversed. In addition, a new rejection of claims 16 and 36 under 35 U.S.C. § 112, first paragraph, has been added pursuant to provisions of 37 CFR § 41.50(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz.

Pat. Office 21 (September 7, 2004)). 37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

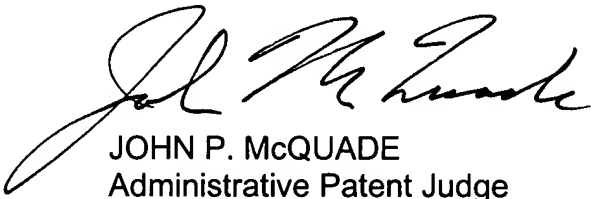
37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

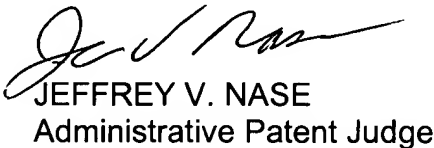
(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal  
may be extended under 37 CFR § 1.136(a).

REVERSED; 37 CFR § 41.50(b)

  
JOHN P. McQUADE  
Administrative Patent Judge

  
JEFFREY V. NASE  
Administrative Patent Judge

  
JENNIFER D. BAHR  
Administrative Patent Judge

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